

Application No.: 10/627,232

Docket No.: 02-050

REMARKS**Interview Summary**

This amendment is submitted following the interview conducted November 16, 2005. During the interview, Applicant's attorney (Christopher S.L. Crawford, Reg. No. 51,586) and the Examiner discussed North (U.S. Patent Application Publication No. 2001/0007950), Lynch (USPN 5,038,781), Juran (USPN 6,016,447) and possible claim amendments. No specific agreement was reached during the interview. Applicant thanks the Examiner for the Examiner's time and consideration in discussing the present application and the applied references to expedite prosecution of the present application.

Claim Amendments

In the present amendment, Applicant has amended the independent claims. The amendments are supported by the original application and no new matter has been entered.

Independent claim 1 recites:

a pulse generator that outputs at least two sets of electrical stimulation pulses in a substantially concurrent and interleaved manner, wherein each set of stimulation pulses are associated with a unique stimulation setting such that the at least two sets of electrical stimulation pulses have differing characteristics, wherein the pulse generator generates its outputs as directed by the microprocessor in accordance with at least one repetition parameter associated with each unique stimulation setting, and wherein the at least one repetition parameter defines a number of pulses to be generated for one of the at least two sets of electrical stimulation pulses within a stimulation cycle independent from one or several pulse frequency parameters defined for the at least two sets of electrical stimulation pulses.

Independent claim 13 recites:

wherein the selecting, generating, and delivering of the first and second sets of electrical pulses occurs in an interleaved and substantially concurrent manner and wherein the repetition patterns define a number of pulses to be generated according to the first and second stimulation settings during pulse interleaving independent from one or several pulse frequency parameters defined for the first and second sets of electrical pulses.

Independent claim 24 recites:

stimulating living tissue(s) using a substantially continuous set of pulses wherein the stimulating includes (i) successively selecting a stimulation set from the plurality

Application No.: 10/627,232

Docket No.: 02-050

of stimulation sets in a cyclical manner; (ii) generating a pulse according to the pulse characteristic of the selected stimulation set; and (iii) delivering the generated pulse to living tissue(s) through electrodes according to the electrode configuration of the selected stimulation set;

wherein the stimulating repeats the generating and delivering for the at least one of the plurality of stimulation sets according to the repetition parameter within each stimulation cycle independent from one or several frequency parameters associated with the plurality of stimulation sets.

Independent claim 28 recites:

(iv) causes the pulse generator to output at least one pulse after the loading and configuring, wherein the microprocessor causes the pulse generator to generate adjacent pulses according to a frequency parameter; and

(v) when the selected stimulation set is the at least one stimulation set associated with the repetition parameter, repeating (iv) according to the repetition parameter within a stimulation cycle independent from the frequency parameter.

Applicant respectfully submits that North merely discloses conventional pulse parameters such as pulse amplitude, pulse width, and pulse frequency. Applicant respectfully submits that there is no "repetition parameter" or "repetition pattern" for controlling stimulation pulses in the manner recited by independent claims 1, 13, 24, and 28. Therefore, Applicant respectfully submits that the independent claims are patentable over North. As all independent claims are allowable, Applicant submits that the dependent claims are likewise patentable in addition to the novel and nonobvious limitations recited therein.

Conclusion

Applicant respectfully submits that the application is in condition for allowance and requests the Examiner to pass the application to issue. If the Examiner believes that a telephone call would be helpful in resolving any remaining issues, the Examiner is invited to call the attorney listed below.

Dated:

12-12-2005

Respectfully submitted,

By 

Christopher S.L. Crawford

Reg. No. 51,586

Advanced Neuromodulation Systems, Inc.

6901 Preston Road

Plano, TX 75024

Telephone No: (972) 309-8006